Release notes for ENDF/B Development e-066_Dy_000 evaluation

October 13, 2016

- `fudge-4.0` Warnings:

  1. Mislabled emitted particle
     Reading ENDF file: ../e-066_Dy_000.endf (Error # 0): ZAP messed up

     `WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0`

  2. FIXME: Generic fudge unimplemented message
     reaction label 1: e- + Dy + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)

     `WARNING: Checking not yet implemented for energyLoss type data`

  3. FIXME: Generic fudge unimplemented message
     reaction label 2: e- + Dy [excitation] / Product: e- (Error # 0): Generic unimp (c)

     `WARNING: Checking not yet implemented for energyLoss type data`

- `fudge-4.0` Errors:

  1. Calculated and tabulated thresholds don't agree
     reaction label 0: e- + Dy [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  2. Calculated and tabulated thresholds don't agree
     reaction label 1: e- + Dy + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  3. Calculated and tabulated thresholds don't agree
     reaction label 2: e- + Dy [excitation] / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  4. Calculated and tabulated thresholds don't agree
     reaction label 3: e- + e- + Dy1s1/2 / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 53861. eV!`

  5. Calculated and tabulated thresholds don't agree
     reaction label 4: e- + e- + Dy2s1/2 / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9012.5 eV!`

  6. Calculated and tabulated thresholds don't agree
     reaction label 5: e- + e- + Dy2p1/2 / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8590.700000000001 eV!`

  7. Calculated and tabulated thresholds don't agree
     reaction label 6: e- + e- + Dy2p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 7781. eV!
```

8. Calculated and tabulated thresholds don't agree
   reaction label 7: e- + e- + Dy3s1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2018.2 eV!
```

9. Calculated and tabulated thresholds don't agree
   reaction label 8: e- + e- + Dy3p1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1830.9 eV!
```

10. Calculated and tabulated thresholds don't agree
    reaction label 9: e- + e- + Dy3p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1662.1 eV!
```

11. Calculated and tabulated thresholds don't agree
    reaction label 10: e- + e- + Dy3d3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1336.6 eV!
```

12. Calculated and tabulated thresholds don't agree
    reaction label 11: e- + e- + Dy3d5/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1299.5 eV!
```

13. Calculated and tabulated thresholds don't agree
    reaction label 12: e- + e- + Dy4s1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 404.2 eV!
```

14. Calculated and tabulated thresholds don't agree
    reaction label 13: e- + e- + Dy4p1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 329.38 eV!
```

15. Calculated and tabulated thresholds don't agree
    reaction label 14: e- + e- + Dy4p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 291.56 eV!
```

16. Calculated and tabulated thresholds don't agree
    reaction label 15: e- + e- + Dy4d3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 167.07 eV!
```

17. Calculated and tabulated thresholds don't agree
    reaction label 16: e- + e- + Dy4d5/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 160.24 eV!
```

18. Calculated and tabulated thresholds don't agree
    reaction label 17: e- + e- + Dy4f5/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10.62 eV!
```

19. Calculated and tabulated thresholds don't agree
    reaction label 18: e- + e- + Dy4f7/2 / Cross section: (Error # 0): Threshold mismatch

    ```
    WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.66 eV!
    ```

20. Calculated and tabulated thresholds don't agree
    reaction label 19: e- + e- + Dy5s1/2 / Cross section: (Error # 0): Threshold mismatch

    ```
    WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 53.67 eV!
    ```

21. Calculated and tabulated thresholds don't agree
    reaction label 20: e- + e- + Dy5p1/2 / Cross section: (Error # 0): Threshold mismatch

    ```
    WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 33.06 eV!
    ```

22. Calculated and tabulated thresholds don't agree
    reaction label 21: e- + e- + Dy5p3/2 / Cross section: (Error # 0): Threshold mismatch

    ```
    WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 28.09 eV!
    ```

23. Calculated and tabulated thresholds don't agree
    reaction label 22: e- + e- + Dy6s1/2 / Cross section: (Error # 0): Threshold mismatch

    ```
    WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.35 eV!
    ```

- `xsectplotter` Warnings:

  1. Mislabled emitted particle
     Error: ZAP messed up

     ```
     stderr while processing crossSection

         WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
     ... [4 more lines]
     ```